

- Claim 44. (New) A method for inhibiting interleukin-9 (IL-9) activity in a subject in need thereof, comprising administering an amount of a conjugate of IL-9 and a carrier to said subject, sufficient to induce production of antibodies which bind to and neutralize IL-9.
- Claim 45. (New) The method of claim 44, wherein said carrier is ovalbumin, keyhole limpet hemocyanin, acetylated bovine serum albumin, or Bortadella pertussis toxin.
- Claim 46. (New) The method of claim 45, wherein said ovalbumin is maleimide substituted ovalbumin, conjugated to IL-9 via a free SH group in said IL-9.
- Claim 47. (New) The method of claim 45, wherein said carrier is cross-linked to IL-9 via glutaraldehyde.
- Claim 48. (New) The method of claim 44, wherein said subject is a mammal.
- Claim 49. (New) The method of claim 44, comprising administering said conjugate to said subject at intervals of about 2 weeks, for a period of about 6 weeks.
- Claim 50. (New) The method of claim 44, comprising administering said conjugate in an amount ranging from about 1 $\mu$ g to about 10 $\mu$ g.
- Claim 51. (New) The method of claim 44, wherein said subject suffers from a condition selected from the group consisting of excess lymphomagenesis, intestinal mastocytosis, overexpansion of  $\beta$ 1 lymphocytes, and bronchial hyperresponsiveness.
- Claim 52. (New) The method of claim 44, wherein said subject is in need of reducing production of a Th2 cytokine.
- Claim 53. (New) A method for inducing an elevated titer of an antibody which is specific for and neutralizes interleukin-9 (IL-9), comprising administering

to said subject an amount of a conjugate of IL-9 and a carrier in an amount sufficient to provoke production of antibodies specific to IL-9 which neutralize it, wherein the elevated titer of said antibody presents for at least six months following immunization.

- Claim 54. (New) The method of claim 53, wherein said carrier is selected from the group consisting of ovalbumin keyhole limpet hemocyanin, acetylated bovine serum albumin, and Bortadella pertussis toxin.
- Claim 55. (New) The method of claim 54, wherein said ovalbumin is maleimide substituted ovalbumin, conjugated to IL-9 via a free SH group in said IL-9.
- Claim 56. (New) The method of claim 55, wherein said carrier is cross linked to IL-9 via gluteraldehyde.
- Claim 57. (New) The method of claim 53, wherein said subject is a mammal.
- Claim 58. (New) The method of claim 53, comprising administering said conjugate to said subject at intervals of about 2 weeks, for a period of about 6 weeks.
- Claim 59. (New) The method of claim 53, comprising administering said conjugate in an amount ranging from about 1 $\mu$ g to about 10 $\mu$ g.
- Claim 60. (New) A composition useful in generating an antibody which binds to and neutralizes interleukin-9, comprising a conjugate of interleukin-9 and ovalbumin, and a pharmaceutically acceptable carrier.
- Claim 61. (New) The composition of claim 60, wherein said IL-9 and ovalbumin are conjugated via a free SH group in said IL-9, and said ovalbumin is substituted with maleimide.
- Claim 62. (New) The composition of claim 61, wherein said ovalbumin is cross linked to IL-9 via glutaraldehyde.